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DEVELOPMENT OF THE CHEMICAL AND  
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## DEVELOPMENT OF CHEMICAL AND ALLIED INDUSTRY INDUSTRIAL DEVELOPMENT IN THE SOUTH

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It has long been axiomatic that the terms agriculture and the South are practically synonymous. Blessed with good earth, a fairly abundant rainfall, and a long growing season, the early settlers rightly regarded the South as only slightly less desirable than the Garden of Eden. In this land of lush growth there flourished a culture regarded by many as the crowning achievement of the age of Chivalry. With an economy based on the fruits of the apparently inexhaustible soil, the South was content to let industry develop almost exclusively in the North.

With continued cropping, however, it became increasingly difficult to maintain the early high level of production, and it became increasingly apparent that stable prosperity could be achieved only by broadening the base of southern production. Agriculture alone was not enough, for the northern industrialist controlled the market and reaped the major share of the profits on both the purchase of southern produce and the sale of the manufactured goods derived from such produce. In addition, the southern consumer paid two freight bills; one to haul the raw materials North and the other to transport the finished article South. Diversification in both agriculture and industry held the key to the future development of the South.

As cotton was the South's most important product, and the cornerstone of its economic structure, it was logical that it should be selected as the raw material for its first large venture in industry. For generations, cotton had been exported to the New England States for spinning, weaving, and conversion into finished cloth. At the turn of the Century, New England had 70% of the industry's spindles, but the shift to the South had started in earnest. Today, 77% of the spindles are located in the 800 mills in the land of cotton.

Paralleling this development, but at a somewhat later date, was the rise of the chemical industry in the South. Born in the depression years of the early 1930's, and rapidly attaining its majority during the eventful days of the late World War, the southern chemical industry is rapidly overtaking its northern brother. Over 50% of the expansions in chemical manufacturing facilities since Korea will have been located in the South.

Recent surveys of U. S. industry show that the maximum projected spending for plant expenditures will occur in 1955. In general, manufacturers plan to boost capacity 7% during 1953 and another 9% by 1956. No industry in any category expects to remain static, and current expansion plans to include, to name a few, steel, machinery, electrical machinery, foods, petrochemical and chemical. For the chemical industry, expansion is expected to be divided on the average between 70% for new spending and 30% for modernization. Manufacturing in general, lumping all together, allots 43% to expansion and 57% to modernization. It is evident that for the chemical industry, expansion predominates and is considerably above industry as a whole. Therein is the boon to the South. If trends of the past 10 years continue, the South, with some effort, can capture much of the new money for chemical and allied industry. It can continue to exploit its many industrial attributes.

Dixie has not been always completely receptive to variations of its historic

past. It has gravely watched the rise of the synthetic fiber industry, since it seemed to challenge one of the South's chief commodities, cotton; though, as time has passed the new industries, chemical and synthetic fibers, have been accepted as important industrial assets which would greatly diversify the overall business and manufacturing activity. What is more, it well supplements the accepted historic agricultural asset.

We may well ask ourselves why has the chemical industry and other industries turned South. The answer to our question is evident from a study of the specific factors that must be taken into consideration in selecting a region for the development of a new industry. Land of suitable types must be available for plant sites, people are required to manage and operate the new installation, raw materials must be available, water of good quality is required for process use and for cooling purposes, adequate transportation facilities must be available, fuel and power are needed in large amounts and at reasonable rates, certain financial facilities are required, and last but not least, markets must be accessible. These provide the base upon which modern industry is built and the South will be surveyed with these factors in mind in order to measure the contribution of each to its rapidly growing industrial empire.

#### The Land and the People

Of paramount importance in the evaluation of any region for industrial purposes is a study of the land, its natural advantages and resources, and the people inhabiting the land. For the purpose of the present study, the South will comprise the thirteen states extending from the Potomac to the Rio Grande. This area contains 540 million acres of land, equivalent to 28-1/2% of the land area of the United States, and historically, geographically, and climatically it may be regarded as a single cultural region.

Of this area, 43% is in forest, 30% in crop lands, and 18% in pasture and range lands. Good plant sites can be readily located in almost every section. This, coupled with the desire of the people to replace their declining agricultural potential with other sources of income, has induced the southern states to extend every possible encouragement to industry. The mild southern climate has made it possible for many industries to largely or completely dispense with the buildings required for plant operations in other sections of the country. Several of the newer chemical plants constructed in the South have been built entirely in the open, with consequent large savings in plant investment. More on the subject of site selection later.

The South has a population of nearly 40 million, equivalent to 29% of the total population of the country. As this is remarkably close to 28-1/2%, the South's share of the nation's total land area, the density of population is about the same as in the remainder of the country. The population is increasing at a very rapid rate, the number of persons in the South at the present time being equivalent to the total population of the United States in 1870.

The South's greatest resource is its people. The migration of industry South at an accelerating rate during the past ten years has been due in no small measure to the ample supply of intelligent, willing, and capable workers available for the management and operation of new industrial enterprises. And nowhere has this been more pronounced than in the chemical industry, where a high standard of skill and competence is required for successful operations.

In this connection, it is well to point out that the opinion once prevalent

that skilled industrial workers are available only in areas having a long industrial history has been proven to be completely erroneous. During the war years, it was found that chemical plants operated in the South by native labor almost invariably had better operating records than similar plants constructed in other sections of the country. Southern labor has proven its ability to operate the most intricate industrial processes, and to produce at a rate equal to that of any other section of the country.

#### Mineral Resources

Turning next to minerals, the chemical industry is met with a very encouraging picture. The South has a wide variety of minerals, and many are available in very substantial amounts. The total value of all minerals produced in the South in 1950 was 4-1/2 billion dollars, or 44% of the nation's total. More than half was produced in Texas, with petroleum accounting for 78% of the South's total. Coal and petroleum together amounted to 90% of the overall Southern mineral production.

The total southern production of petroleum, its most important mineral resource, was 1.7 billion barrels in 1951. Present proven reserves of oil in the United States amount to approximately 32 billion barrels, of which the South has about 70%.

On the basis of the present rate of consumption, which has been rising steadily and rapidly, present proven reserves of oil are sufficient for 13 years. To offset this, new reserves are constantly being discovered and for the past twenty years proven reserves have increased steadily despite rapidly rising consumption.

The production of natural gas in the South now amounts to 6 trillion cubic feet, 75% of the total production in the country. In dollar value, it is the South's second most important mineral. Known reserves will last for 25 years at present rates of consumption, and approximately 80% of the reserves are located in the South.

In the case of petroleum and natural gas, several factors are of vital interest to the South. In the first place, there has been an enormous increase in consumption in recent years, occasioned to a considerable extent by the substitution of these commodities for coal. Second, oil and gas are increasingly important basic raw materials for the production of many chemicals, such as synthetic rubber and the new synthetic fibers. Finally, oil and gas are of vital importance to the Southwest, which lacks coal and water power and would be severely handicapped if these basic sources of power should become exhausted.

Coal, the South's third most important mineral, is available in sufficient quantities to last almost indefinitely. The 1950 production was valued at slightly over 1/2 billion dollars, 22% of the nation's total. The South has approximately 1/5 of the coal reserve of the country.

The South has ample supplies of iron ore and produces 8% of the nation's total. Present reserves are estimated at 2 billion tons, or nearly 40% of the reserves in the United States. It has 40% of the country's phosphate rock, and accounts for over 90% of the current production. The South has all of the nation's reserves of bauxite and native sulfur usable under normal conditions.

The availability of petroleum and natural gas, two very desirable raw materials for the production of chemicals, has had a profound influence upon the development of chemical industry in the South. Over 85% of the total petrochemical industry in this country is concentrated along the Gulf Coast within a 200 mile radius of Houston.

Despite this bright picture, however, one is compelled to end this section of the survey on a sobering note. The dependence of southern chemical industry upon a continuing adequate supply of natural gas, both as a raw material and as a source of energy, cannot be over-emphasized. The Southwest possesses no alternative fuel. The continuing expansion of chemical industry in the South is largely dependent upon an assured supply of petroleum and natural gas hydrocarbons. The transportation of this basic raw material and source of power to other sections of the country should be conducted in full recognition of the vital role it plays in chemical industry in the South. Without adequate supplies of natural gas as a source of fuel and power, as well as a basic raw material, much of the chemical industry in the South would disappear overnight.

#### Water Resources

Nature also has been kind to the South with respect to water, a basic raw material and processing agent for virtually all chemical plant operations. The large annual rainfall in the South, coupled with a long coast line and many rivers, gives it an abundance of water resources. The rivers are important from the standpoint of providing transportation routes, as a source of power, and the provision of the large supplies of process and other water required by many chemical plant operations.

Water is still the cheapest means of transportation, and no other section of the country has such extensive facilities. Approximately 60% of the nation's navigable waterways are located in the South. Nine of the states reach tidewater, and five are served by the Mississippi River and its major tributaries.

The potential water power available in the southern states is estimated at 30 billion kilowatt hours, which is over a third of all of the potential water power east of the Rocky Mountains. The total electrical output from all sources in the South in 1950 was nearly 100 billion kilowatt hours, which represented almost a four-fold increase since 1939.

An abundant and reliable supply of pure water is essential to many industries, and particularly to the chemical industry. In many cases, this has been a deciding factor for chemical plant location in the South. Water for transportation, power, and chemical use may be regarded as one of the South's important resources from the standpoint of chemical manufacturing operations.

There are other resources, such as forest land. 43% of the total land area is in woods. Lumber accounts for 36% of the national income from this source, or an excess of 2 billion dollars in 1950. The naval stores industry accounted for 135 million dollars in 1950, principal products being turpentine and rosin, used as raw materials in many chemical industries, such as soap and detergent manufacture. The South has an extensive system of water transportation; 28% of the nation's railroads and 29% of the nation's highways, on a mileage basis.

#### The Changing Pattern of Agriculture, Industry, and Income

Next to mining, southern agriculture is the most important source of raw materials for chemical plant operations in the South. Changes in this basic activity will have a profound effect upon the chemical industry, as agriculture also is a large and important market for chemical products.

The South's portion of the nation's manufacturing industry has been increasing for some time. In 1947, the region had 17.7% of the country's



production workers. At the present time, the textile industry is the most important, followed by food manufacturing, industries based on petroleum and coal, and the chemical industry.

The southern states are getting a major portion of the new industrial facilities, except steel, under the decentralization trend of the government's accelerated depreciation program. The South's share has been a widely diversified group of new industries, including chemicals, aluminum, gasoline products, paper, aircraft, nonferrous metals, and some steel plants. In aluminum, for example, the South will have 2/3 of the new installations, or 235 million dollars, out of a total of 350 million dollars. The South also is getting 254 million dollars worth of gasoline plants out of a total award of 487 million dollars, and over 50% of the 600 million dollar chemical plant installations approved. In all other manufacturing plant awards, the South secured 45%.

The South has made substantial gains in income during the past two decades, increasing from 47% of the non-southern average in 1929 to 65% in 1947. The source of income also has changed considerably. The proportion of income from agriculture decreased 18% since 1929, while the proportion of income from manufacturing increased by 20%. In 1929, income from agriculture was about 65% greater than income from manufacturing. At the present time, income from industry is slightly greater than income from agriculture. The South's income now is approximately 20% of the total income from the nation, and is increasing half again as fast as the national average.

Despite the changes in agricultural income, the production of agricultural chemicals continues to be a lucrative field. Shrinking acreages and the increasing cost of farm labor makes it imperative that maximum yields per acre be obtained. This creates a larger total market for fertilizers, insecticides, and other agricultural chemicals. At the same time, the growing southern industry provides a ready market for a large number of industrial chemicals.

More important than either of these considerations, however, is the substantial increase in southern income. This has provided the additional funds required to absorb the products resulting from industrial expansion within the area. As a matter of fact, the South is rapidly becoming its own best customer and southern goods and produce need no longer look elsewhere for their best market.

#### Revolution in the South

An economic revolution is sweeping the southland and making it the fastest growing industrial area in the country. An average of seven new plants have opened their gates in the South during every working day for the past ten years, creating over 1-1/4 million new jobs in southern industry. During 1951, the South added one multi-million dollar industrial plant each working day, more than 300 major plants representing a capital investment in excess of three billion dollars in twelve months.

#### Petrochemicals

One of the most significant trends during 1951 was the continuing expansion in the field of petrochemicals, which comprises the chemicals derived from oil and natural gas. In fact, many authorities state that the spectacular growth of the petrochemical industry is one of the most important developments of the past quarter of a century. Petroleum and natural gas are rapidly

becoming the basic raw materials for much of the chemical industry.

Petrochemicals account for 25% of all of the chemicals being produced in this country today, and it is freely predicted that this will increase to 50% within ten years. These are rapid strides for an industry established some 25 years ago, and substantially all of this industry is located in the South.

A measure of the growing importance of this new chemical industry is to consider its growth curve during the past ten years. The petrochemical industry had an estimated capital investment of 350 million dollars and a production rate of 4 million pounds of chemicals per year in 1940. Today, the capital investment has increased to two billion dollars and the production rate is 16 billion pounds per year.

An idea of the magnitude of the raw material requirements for this industry may be had by considering that over three million tons of liquid gas feed stocks were required in one branch of the petrochemical industry in 1951.

Despite these huge demands, the petrochemical industry estimates that only 1% of the petroleum and 5% of the natural gas produced in the country is used in the manufacture of petrochemicals. The industry rests on a firm and secure base. Petroleum developed 5.1 billion barrels of new reserves in 1951, surpassing the highest previous record by nearly a billion barrels. The petroleum production (withdrawals from reserves) amounted to 2.5 billion barrels, the overall reserves were increased by 2.6 billion barrels. In other words, for every barrel of crude oil withdrawn from the ground in 1951, two new ones were found. Proven reserves now stand at 32.2 billion barrels, the highest on record and 2-1/2 times the 1936 reserves of 13 billion barrels.

The major portion of these reserves are located in the South, particularly in the Southwest. Texas alone has over half (18.2 billion barrels) of the proven reserves, and the South as a whole has 70%. Southern production of petroleum accounts for two thirds of the nation's total.

The nation's natural gas reserves now amount to 193.8 trillion cubic feet. The net gain during the year was 8.2 trillion cubic feet, the second largest on record despite a record breaking production of 8 trillion cubic feet. The production of natural gas in the South is 75% of the nation's total, and approximately 80% of the reserves are located in the South.

#### The Chemical Industry Turns South

With petrochemicals as a base, the chemical empire of the South is rapidly expanding. The concentration of petrochemical plants in the Southwest - more than 50 of which are located along the Texas-Louisiana Gulf Coast alone - is such as to justify the classification of the petrochemical industry as a southern industry. Over 85% of the total petrochemical production facilities in the United States is concentrated along the Gulf Coast within a radius of 200 miles from Houston.

Because petrochemicals are admirable building blocks, the majority of the new synthetic chemical industries are located in the South. Over 80% of the synthetic rubber industry is located in the South, and over 50% of the country's synthetic ammonia production capacity is located in the same area. Nearly three quarters of the recently announced expansions in the ammonia field will be constructed in the South. And the new synthetic fiber industry is almost wholly a southern industry.

By 1950, the South had 25% of the chemical manufacturing plants in the country, 32.5% of all persons engaged in the chemical industry, 31.6% of chemical income, payrolls, and profits, and 32% of the chemical sales of the



country. Substantially, every large chemical company, including such giants as du Pont, Carbide and Carbon, Allied, Monsanto, and Dow, now has one or more plants in the South. As a clear indication of the trend, du Pont, the world's largest chemical company, has nearly half of its total investments and inventories in the South.

Nor is this all. Over 50% of the chemical industry's initial plant expansion for 1951 covered by certificates of necessity, and amounting to 600 million dollars will be located in the South. The southern chemical industry is well on its way to becoming the chief producer of chemicals in the country.

### Synthetic Fibers

The 1930's saw the rise of the synthetic organic chemical industry in this country, while the next decade witnessed equally impressive developments in synthetic rubber and plastics. The present decade is destined to be one in which synthetic fibers will play the outstanding role. At the present time, the synthetic fiber industry exceeds all other branches of the chemical industry in rapidity of growth and possibilities for the future.

Until late in the last century, the fibers available for the covering, warmth, and adornment of mankind were only four in number, namely, cotton, wool, silk, and linen. From the earliest times until the present, these fine fibers so generously provided by nature were sufficient to meet all of our needs.

But with the further development of the machine age, with its emphasis upon productivity and the large scale manufacture of what had once been regarded as luxury items, an insatiable appetite for more and better textiles was created. The feminine wardrobe, which had been restricted to the commoner fibers for all but the favored few, demanded increasing quantities of costly and exotic garments. Judy O'Grady, as well as the Colonel's lady, wanted a pair of silk stockings and it was up to industry to provide them.

### Plant Location

We have outlined, in broad terms, many factors that are considered when Industry must develop information upon which to locate their facilities. Picking the best sites for new plants is one of the toughest problems faced by any company. It is an especially difficult one for the chemical and allied industries. The pitfalls that may be encountered are many and the disadvantage resulting from choosing a wrong site can be catastrophic. The locating of new plants must be approached most carefully and a new site selected only after most thorough study and review of all factors and requirements. It is impossible to assign a numerical finite value to many of the factors. Therefore, the selection for an industrial location must be made with an attendant evaluation of intangibles which can be accomplished only by exercising good judgment.

There is no fixed formula that will provide a universal approach to the problem and the factors involved are usually too numerous and complex to permit use of standard or stereotyped methods. Relationships for different industries are so varied that generalizations are quite impossible. However, with the trend from individually managed and owned enterprises towards large integrated and dispersed businesses, close attention must be given to as full and complete an evaluation of these factors as possible. With increasing competition, management must determine and thoroughly analyze all cost factors in plant site location. In the past decade some general basic

information and methods of approaching the problem have emerged, and there has been progress made in bringing some order and logic to the otherwise absurd situation.

We have discussed broadly what the South has to offer the chemical and allied industries. The existence in the South of much that industry needs for profitable operation compels management to consider the area in any plans for expansion.

One of the simplest, yet inclusive and concrete means of showing the effect of all the factors on the ultimate cost is to set up the various costs in chart form as a cost per 100# of product. One such chart is shown in Figure I. It consolidates factual data for the main factors that make up the major costs and shows clearly, from a straight economic standpoint, what the conclusion should be. Once this is done, intangibles can be given consideration.

For our immediate purpose, for example, under steam there is involved the cost per ton of the solid fuel or per barrel of oil, plus its transportation to the site. From calculations already made as to the amount of steam required per 100# product, the cost of steam is calculated from the cost of fuel, its transportation, plus the amount of potable water used, amortization of the investment or capital cost and indirect charges as insurance.

Calculations for power are similarly made and from the rates that have been obtained in a survey, a specific cost is fixed to include transportation with an addition made to cover amortization of the capital investment. The figure applies whether power is purchased or generated. It is the overall power cost that must appear on the manufacturing cost sheets.

Water for cooling and process - this charge includes pumping charges, amortization on distribution system and any charges involved in treating water, if this is necessary.

The labor factor analyses is made, based on a complete organization chart, which shows the type and number of people required to man the operation. Labor rates for the area are reviewed from job descriptions, those which apply are established. Having the number and the wage brackets which apply, the annual cost can be arrived at, and the cost per 100# product is easily figured.

Raw materials and finished goods involve transportation. Raw materials may come from many sources. The annual transportation charge is developed, and along with this, transportation on finished goods is calculated to make up a total annual charge for transportation from which the cost per 100# product is fixed, as shown.

Taxes are an important part of costs. They must be looked into specifically and carefully, since there is wide variation in how taxes affect an operation. The information is available, and once assembled, the annual charge can be reasonably fixed to make possible the determining of the cost per 100#. The eight cases you see in Figure I were developed in this way. Subsequently, other intangible factors were studied and a selection made.

As another method of presentation, we show a summary of a plant location survey as outlined in the National Industrial Conference Board Bulletin #61 - Techniques of Plant Location. Here you see in Figure II various costs shown in bar chart form on an annual basis. In effect, the data, in very brief and specific form, makes possible a conclusion for selecting the site. All the back-up papers, from which the chart is made, either in figures or bars, may be voluminous, but I believe it is clearly shown that the whole picture can be briefed down to the point where it is easily interpreted.

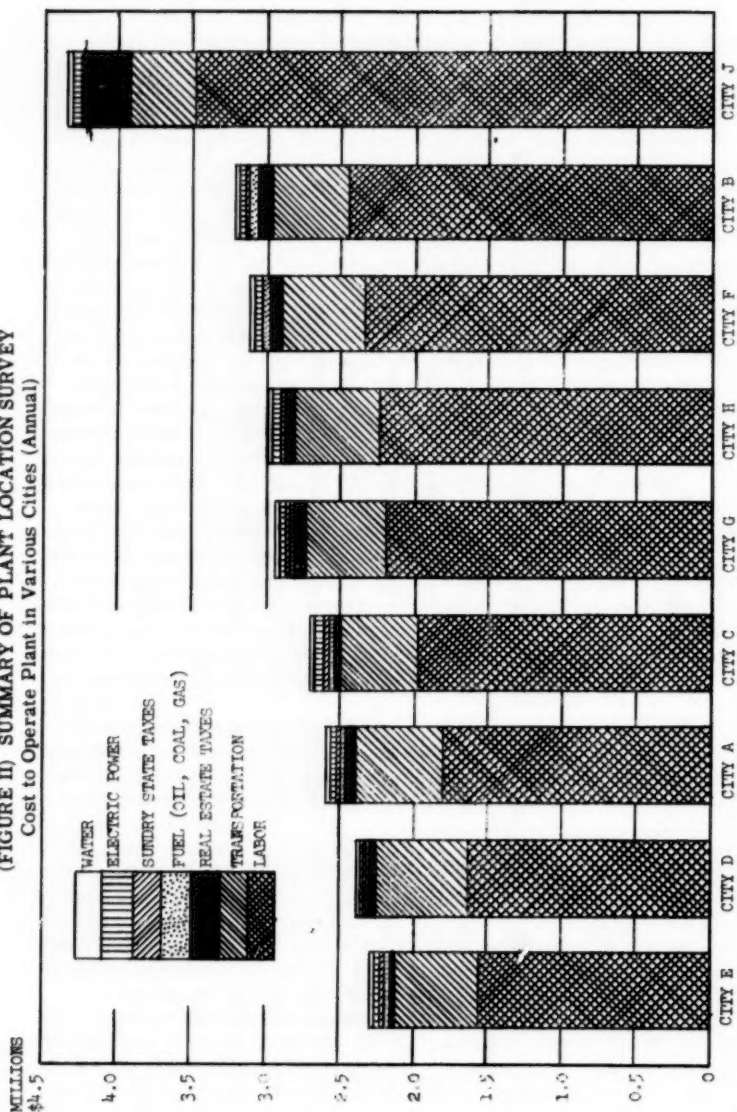
Intangibles also influence the choice of plant sites, Figure III shows some

(FIGURE 1)

LOCATION STUDYSUMMARY

Area	Steam Per 100% Product	Power Per 100% Product	Water Per 100% Product	Labor	Tot. Frt.	Taxes	Total Difference					Diff. in Steam Taxes	Diff. in Water Transportation
							Before Inc. Taxes	After Federal Inc. Taxes	Per 100% Prod.	Diff. in Steam Taxes	Diff. in Water Transportation		
I	2.15	.79	.75	5.03	3.31	1.16	13.19	0	0	0	0	0	None
II	3.70	.72	.73	5.03	3.19	1.97	15.34	215,000	400,000	2.15	1.55	.01	Possible
III	3.77	.49	.73	5.03	3.32	2.26	15.60	241,000	448,000	2.41	1.62	1.10	Possible
IV	3.52	.87	.75	5.83	3.70	1.68	16.43	324,000	603,000	3.24	1.37	.52	Possible
V	4.42	.89	.75	4.27	3.11	3.06	16.50	331,000	615,000	3.31	2.27	1.90	None
VI	4.64	.79	.73	4.27	3.27	3.06	16.76	357,000	665,000	3.57	2.49	1.90	Possible
VII	3.94	.89	.73	4.70	3.58	3.07	16.91	372,000	691,000	3.72	1.79	1.01	None
VIII	4.64	.79	.73	4.38	3.34	3.61	17.49	430,000	800,000	4.30	2.49	2.45	None
Max. Diff.	2.49	.40	.02	1.56	.67	2.45	4.30						

(FIGURE II) SUMMARY OF PLANT LOCATION SURVEY  
Cost to Operate Plant in Various Cities (Annual)



NOTES:

Labor: Labor is based on employment of 1,000 semiskilled workers.  
Transportation: Computed on incoming and outgoing freight.  
Real Estate Taxes: Obtained from local sources.  
Fuel: Computed from local rates for most economical source of heat.  
Sundry State Taxes: Franchise, income, and license taxes.  
Electric Power and Water: From local rates.

(FIGURE III)

## Comparison of Other Factors Influencing Choice of Plant Site

Factor	City E	City D	City A	City C	City G	City H	City F	City B	City J
(1) Labor supply	adeq.	adeq.	plant.	plant.	adeq.	adeq.	plant.	plant.	plant.
(2) Type of labor	good	good	excel.	excel.	excel.	excel.	excel.	excel.	excel.
(3) Union activity	sign.	sign.	neg.	neg.	mod.	sign.	sign.	mod.	act.
(4) Attitude	good	good	v.g.	v.g.	good	good	v.g.	v.g.	good
(5) Appearance	fair	fair	good	good	excel.	fair	good	good	good
(6) Transportation	good	good	v.g.	good	v.g.	good	v.g.	v.g.	v.g.
(7) Recreation	good	v.g.	v.g.	v.g.	v.g.	good	v.g.	v.g.	v.g.

- NOTES: (1) (2) Consensus of the survey committee regarding availability and type of labor after talking with leading local employers and employment service.
- (3) Based on present and past record of labor difficulties, strength of unions, number of unions, etc.
- (4) Impression gained from city officials and industrialists regarding our location in their town.
- (5) Cleanliness and repair of streets, homes, business section, parks, schools, new construction, etc.
- (6) Relative access to town by auto, rail, and air.
- (7) Playground facilities (white and colored), swimming pools, golf courses, tennis courts, etc.

of them such as the labor supply, the type of labor, the union activity, the overall attitude of the community toward taking in a new industry, the appearance of the community and surrounding area, the availability of transportation and recreational facilities available to new comers. There are many others including schools, churches, etc.

A study of the charts provides an almost immediate realization of why the South is a favorite area for expansion of the chemical and allied industries.

Consider the item of fuel, for example, we have mentioned that coal is the South's third most important mineral and that in 1950 22% of the nation's total coal mined came from southern pits. Availability is excellent. As a result, the cost of steam and power from steam can be low compared to other areas where coal is less favorably distributed. Oil is also available in quantity, transported by rail or water. Moreover, gas lines pass through the area like arteries in a body. Compared to some other areas, the South is in a most favorable position, so far as all types of fuel are concerned. The cost per pound for steam will therefore be highly competitive with any other region.

Consider next the item - cost of power. This is one of the most competitive items favorable to the South. T.V.A. has the second lowest rate in the country. Potential water power available to the Southern States is sizable, but even without water power, public utilities can generate power to sell at low rates because fuel is cheap and water abundant.

Then we may examine the item of freight cost - both freight in on raw materials and freight out on finished product. Because the South is in a strategic position between abundant raw materials and the markets for finished goods, the balance between incoming and outgoing freight costs is most favorable. The net cost for freight per pound of product will therefore be in a range which will be highly competitive.

The importance of the labor factor is evident from a study of Figures I and II. Viewed against the back-drop of pages of newspaper want ads reflecting the stringency of labor in many of the larger cities in the North, it is easy to understand why a company would settle in the South, where in almost any community labor is available in ample numbers, is intelligent and can be easily trained and is generally cooperative in making maximum use of the productive tools provided by management.

The item of taxes on industry in the South is less onerous than in many regions. Because of its eagerness to industrialize a liberal attitude is the rule. It is hard to find a community that wants to saddle taxes on industry out of proportion to its fair share.

In some places, special inducements, such as tax abatement for some years is offered. Moratoriums, too, are sometimes offered. In some places, facilities are built to fit the needs for the operation. While these inducements are understandable enticements, and indicate a community solidarity of purpose, I believe industry should not give too much weight to these incremental cost depressors. The cost of such contributions must show up somewhere as taxes for someone. It is better that industry carry its just tax load for public purposes.

In closing, let me say that The Chemstrand Corporation was confronted with all these considerations during our search for plant locations. These plants are heavily chemical, as well as synthetic fiber units. Two plants and other facilities now are under construction. One to manufacture Acrilan, acrylic textile fiber, and the other to produce nylon filament yarn. The initial premises that served us as a guide were rail, highway and water



transportation; adequate water supply for process, cooling, disposal; adequate labor market; reasonable distance between raw materials and markets for finished goods; a favorable tax structure and community conditions, acceptable sites free from possible flooding, and areas without high development costs. And in the case of nylon, an adequate source of natural gas was also a factor.

After several months of analytical surveys throughout a wide section of the country, our potential choices for the Acrilan plant were narrowed to two sites. Both of these were in the same state and met closely our basic requirements. Chemstrand, however, finally selected one of them, a 700-acre tract on the banks of Wheeler Lake, formed by the Tennessee River at Decatur, Alabama. Availability of electrical power, water for processing, good transportation routes by water, rail and highway, and labor to operate the production facilities, are principal reasons for selecting Decatur as the site for the Chemstrand administrative headquarters, its large research development center, and Acrilan production facilities. Chemstrand felt that this location provided an economical balance between Chemstrand's source of basic raw materials and the primary markets for the finished fibers. It also was economically possible and physically feasible to acknowledge the government's program for dispersal of new industry away from congested metropolitan areas. The site not chosen was on a bluff. Capital cost for water pumping facilities was at least \$100,000 more than for the site selected. Underground installations would have been more expensive because of rock outcropping at the ground surface.

With all the attributes that we have enumerated, such as land, people, and mineral resources available to industry, including the versatile and myriad raw materials as petroleum and coal, water as a basic raw material for processing and a transportation medium; agriculture as an industry source of raw material, an increasingly large market by reason of increased population catalyzed because of influx of basic industry, the South should look forward to a continuing solid growth and to economic stability with good balance between agriculture and industry.

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